THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

Vol. LXXII. Thursday, July 13, 1865. No. 24.

ABORTION—RETAINED PLACENTA.

[Read before the Boston Society for Medical Observation, and communicated for the Boston Medical and Surgical Journal.]

By J. B. Treadwell, M.D.

Mrs. L., æt. 34; born in Germany; came to this country eleven years ago; married six years. Rather below medium size; never very robust, although she enjoyed pretty good health until she was 21 years old, when she suffered from an attack of acute rheumatism; and since then she has been subject to the same disease in its subacute and chronic forms. She had an attack of the subacute variety three years since, which lasted for six months. Menstruation commenced at the age of 12, with nothing unusual with regard to its symptoms until she attained the age of 23, when without any recognized cause it ceased for some time; the monthly periods, however, subsequently returned with their accustomed regularity, but the menstrual discharge, which had previously been quite copious, was now very slight indeed, and for years never lasted more than a single day. This fact is worthy of note in connection with one to be mentioned hereafter. The patient suffered from chronic bronchitis during the past winter.

March 21st, 1865.—Was called to see patient at 1, P.M. Found her in labor, which had commenced on the previous day. She had not menstruated for five months. The waters had escaped twelve hours before I saw her. Labor pains had been present since the afternoon of the preceding day. She was so confident that she was not pregnant that she had neglected to call medical advice until I was summoned, at which time the pains had entirely ceased. There had been no flowing whatever. The uterus, as felt through the abdominal walls, appeared to be some four or five inches in length, and firmly contracted. I found a fœtus in the vagina, with the lower extremities protruding from the external organs of generation. It is altogether probable that it had been in this position for several hours. Upon removing the fœtus, the os uteri was found to be some three fourths of an inch in diameter, and exceedingly rigid, with the cord and a small portion of the placenta, in the shape of a lip, protruding through it. The cord, being very friable, was unfortunately broken in being used as a guide for the fingers. The fœtus was 11½ inches in length, with the umbilicus one half inch below the central point. The nails were considerably developed. It was evidently about five and a half months old. Although the uterus seemed to be firmly contracted, I thought it best to try the effect of ergot, and accordingly gave one drachm of the fluid extract in three doses, at intervals of twenty minutes, hoping that under its influence the uterus might be roused to further action, and the placenta thus be thrown off. No obvious effect, however, was produced. At 3, P.M., I etherized the patient, with a view of relaxing, if possible, the parts, but without obtaining any advantage whatever. At 4, P.M., Dr. J. P. Reynolds saw the patient, and it was decided to attempt the removal of the placenta with forceps; accordingly, at 5, P.M., the attempt was made by Dr. R., first without, and subsequently with, the administration of ether. Nothing was accomplished, however, except that two or three very small pieces were detached and brought away. The friable character of the placenta, together with the unyielding state of the os, accounted for the non-success of this as well as of subsequent attempts. Slight hæmorrhage only attended the operation. She was ordered one drachm of the saturated tincture of ergot every fifteen minutes until five doses were taken, and pulv. opii, gr. ij., in pill, at 8 o'clock. At 9, P.M., she was comfortable. Pulse 96, good. No hæmorrhage. ℞. Tinct. ferri chld., gtt. x., in syrup, every eight hours.

22d, 10, A.M.—Comfortable throughout night, although she did not sleep much. Pulse 90, full. No flowing. Complains of "wind" in abdomen. 1, P.M., Dr. R. again saw patient. Vaginal examination revealed same condition of things as yesterday. Another attempt to remove the placenta was made, with the same want of success as before. The operation was attended with some hæmorrhage, which rather reduced the patient's strength. It was agreed to avail ourselves of the opinion and skill of Dr. Storer, sen., who saw the patient at 4, P.M., and decided that one more attempt at removal should be made. This also proved unsuccessful, only two small bits being brought away. Some hæmorrhage attended the operation, which considerably depressed the patient. By the aid of stimulants, she rallied in a short time, however. A rubber vaginal plug was introduced, with a view of preventing further hæmorrhage and effecting, if possible, a gradual dilatation of the parts. She was ordered to continue the iron, and have spts. vini gal., ℥ ss., every three hours. 9, P.M.—Pretty comfortable; thirsty; complains of some inconvenience from vaginal plug. Continue solution morphine sulph., ʒ ij., to be repeated if she has any pain.

23d, 9, A.M.—Passed a comfortable night. Slept somewhat. Pulse 144, moderately full and strong. Respiration 24, quiet. No flowing. Considerable abdominal distension. Vaginal examination revealed no change in the condition of things. The plug was removed, and vagina was syringed with warm water twice daily. Tr. ferri chld. increased to twenty drops every three hours. Spts. vini gal., ℥ ss., every five hours. Sol. morph. sulph., ʒ i., four times a day. Turpentine stupes to abdomen. 2, P.M.—Pulse 144. Respiration 26. Countenance somewhat anxious. Had a well-marked chill at 10.15, A.M. Some abdominal pain. Incontinence of urine, which is continually dribbling away. Sol. morph. sulph., p. r. n. 9, P.M.—Pulse 120. Respiration 20. Comfortable. No vaginal discharge. Turpentine stupes to be applied in case of pain.

24th, 10, A.M.—Comfortable. Slept well. Pulse 120, good. Respiration 20. Continue treatment. 8, P.M.—Pulse 126. Otherwise same as in morning.

25th, 10, A.M.—Pulse 114. General condition as yesterday. Continue treatment. 8, P.M.—Some abdominal tenderness. Resume stupes. Continue treatment.

26th, 7.15, A.M.—Called to see patient, who is not so well. Pulse 120, weak. Countenance anxious. Considerable abdominal tenderness. Stupes to abdomen. Sol. morph. sulph., ʒ i., and spts. vini gal., ℥ ss. every three hours. 3, P.M.—Same as at morning. Continue treatment. 7, P.M., Pulse 102. Better than in morning. Continue treatment.

27th, 9, A.M.—Pulse 108, good. Respiration 24, quiet. Tongue moist. Perspiring very profusely. Slight chill at 12.30, A.M., lasting twenty minutes, followed by some fever. Continue treatment. 6.45, P.M.—More comfortable. Pulse 106. Respiration 24.

28th, 10.40, A.M.—Pulse 102. Tongue moist. Abdomen natural. No vaginal discharge. 8, P.M.—Pulse 96. Skin natural. Slight chill at 1, P.M. Morphia once in seven hours. Continue treatment.

29th, 12, M.—Pulse 96, good. Appetite improving. Small piece of placenta, of the size of a very small filbert, came away this morning. Continue treatment. 10, P.M.—The same. Continue treatment.

30th, 2.15, P.M.—Improving. Continue treatment.

31st, 12.15, P.M.—Pulse 86, full. To have a piece of steak for dinner. Morphia twice daily. Spts. vini gal., ℥ ss., every four hours.

April 1st, 1, P.M.—Pulse 82. Doing well. Continue treatment.

2d, 10.30, A.M.—Same as yesterday. No vaginal discharge. Continue treatment.

3d, 12, M.—Pulse 90. Tinct. ferri chld., twice daily. Spts. vini gal., ℥ ss., every five hours. Omit morphia. The bowels not having been moved since confinement, she was ordered a simple enema, to be followed by one containing ol. terebinthinæ, if no dejection. Continue treatment.

4th, 12, M.—Pulse 84. Gaining strength. Enema produced a movement of bowels. Vaginal examination revealed everything in normal condition. Neck of uterus of natural size. Continue treatment.

5th, 10, A.M.—Pulse 96. She got up yesterday, contrary to orders. Continue treatment.

6th.—Pulse 86. Gaining strength. Continue treatment.

7th.—Pulse 86. One dejection. Spts. vini gal. four times a day.

8th.—Same as yesterday. Tinct. ferri chld. twice a day.

9th.—Pulse 90.

10th.—Pulse 96. Three mucous discharges, with considerable pain, this morning. Omit tinct. ferri chld. Sol. morph. sulph., p. r. n.

11th.—Pulse 96. Doing well.

13th.—Allowed to get up.

22d.—Since last report, she has been gaining strength and flesh rapidly. Uterus appears to be scarcely larger than in virgin state. The most nourishing diet has been allowed throughout.

Two or three points in the above case are perhaps worthy of special note. 1st. The very small amount of hæmorrhage and the entire absence of any lochial discharge, taken in connection with the fact that the menstrual discharge had been very slight for some years past. 2d. Retained and possibly adherent placenta, taken in connection with the marked rheumatic diathesis.

Of course, it is impossible to say what the exact condition of the interior of the uterus may be, but from careful examination I am satisfied that there cannot be any considerable portion of placenta remaining there; indeed, its size at the present time forbids any such idea. I am confident, also, that the placenta has never been discharged. The small pieces which were removed at different times could not have amounted in the aggregate to more than half the size of a man's thumb.

ON THE CEREBRO-SPINAL SYMPTOMS AND LESIONS OF TYPHUS FEVER, AND ON THE RELATION OF TYPHUS TO EPIDEMIC CEREBRO-SPINAL MENINGITIS.

BY CHARLES MURCHISON, M.D., F.R.C.P., PHYSICIAN TO THE LONDON FEVER HOSPITAL.

It is well known that among the phenomena of typhus the cerebro-spinal symptoms hold a very prominent place. First, there is headache, with vertigo and injected conjunctivæ; then come restlessness, sleeplessness, and delirium, followed by stupor or coma. With these symptoms may be associated paralysis of the sphincter or of the detrusor muscle of the bladder, hyperæsthesia, tremors, floccitatio, subsultus or general convulsions, strabismus, tetanic rigidity of the muscles of the limbs, or even opisthotonos. Occasionally typhus commences with violent delirium and other cerebral symptoms, so that more than once I have known it mistaken for acute mania. The disease, in fact, is the *typhus comatosus* of Sauvages—the *brain fever* of many practitioners. Similar symptoms are sometimes, though more rarely, met with in the course of enteric fever, and have lately been made the subject of a separate monograph by Dr. Fritz.

Among the most common anatomical lesions of typhus are engorgement of the venous sinuses of the dura mater, increased vascularity of the pia mater, and an accumulation of serous fluid in the ventricles and in the subarachnoid space of the brain and cord.

It is not many years since these symptoms and lesions were bebelieved to be the result of inflammatory action in the membrane of the brain and cord, and the treatment of typhus was based upon this belief. But the researches of John Reid and of all subsequent observers have demonstrated that there exists no relation whatever between the degree of vascularity and the amount of subarachnoid fluid on the one hand, and the severity of the cerebral symptoms during life on the other; while it is now universally admitted among pathologists that the lesions of typhus are quite independent of inflammatory action. This is the result of my own observations; and the investigations of John Reid, Peacock, Jenner, Jacquot, Barrallier, and of all modern observers who have had much experience in the *post-mortem* examinations of typhus, lead to the same conclusion. Mr. Moering, of the Russian army, examined the cerebral membranes and subarachnoid serosity in upwards of two hundred cases of typhus, but in no instance could he detect a single pus or exudation corpuscle. The brain in typhus becomes atrophied from want of proper nutrition, and the fluid appears to be effused to fill up the space. It has been well observed, that those symptoms which indicate inflammation of the brain under ordinary circumstances, do not indicate inflammation when the case is one of typhus fever. Still it is not surprising that many modern practitioners, having little experience in *post-mortem* examinations, regard the cerebral symptoms and lesions of typhus as due to inflammation, and that when the disease shows itself in countries where it is little known this should be the common opinion.

But to the rule above laid down there are exceptions. In rare cases, typhus fever is complicated with unmistakable inflammation of the membranes of the brain. At the time of publication of my work on Fevers, I was under the impression that this complication never occurred, but subsequent experience has convinced me that I was mistaken. In the interval I have met with two unequivocal cases of typhus complicated with true meningitis and the effusion of lymph on the surface of the brain. One case was that of an infant aged seven months, admitted with his mother into the London Fever Hospital. Both mother and child had a characteristic typhus rash. The infant was feverish and very restless, moved his head constantly from side to side, and died about the fifth or sixth day of his illness, death being preceded by a severe attack of convulsions. After death the pia mater was found to be intensely injected, and there was a quantity of solid lymph plastered over the base of the brain. The second case was that of a girl aged 19, who had previously enjoyed good health. During the first night of her illness she was delirous; in the second night she had acute delirium, followed next day by coma. On the fourth day of her illness an eruption of typhus appeared on the chest and abdomen, and rapidly became petechial. On the following morning, at 3, A.M., the patient died comatose. On examining the body, the petechiæ on the skin were found to be persistent. There was intense injection of the pia mater and of the brain substance. The white matter presented a pinkish tint, and the grey matter a dark chocolate hue. Large patches of soft, opaque, yellow lymph were found on the surface of the hemispheres following the course of the veins. There was no lymph at the base, and no subarachnoid serosity. Each of the lateral ventricles contained about half a drachm of turbid fluid. In a third case, a girl aged 5, admitted into the London Fever Hospital, typhus proved fatal about the fifteenth day from tubercular meningitis; but in the two first-mentioned cases no trace of tubercle could be discovered either in the membranes of the brain or in the lungs. In an epidemic of typhus in 1831, several cases were observed by Dr. Roupell, in the Seamen's Hospital, in which lymph or pus was found deposited beneath the arachnoid. Some of these cases were dissected by Mr. George Busk, F.R.S., who, I find, corroborates Dr. Roupell's descriptions. A case of typhus complicated with true meningitis is reported by Jacquot. Louis also records two cases of enteric fever, in which the signs of recent meningitis were found after death.

The above remarks appear to me to be not altogether irrelevant to the subject of what is called "epidemic cerebro-spinal meningitis," about which much has been said in connection with the epidemic now prevailing in Russia and Germany. The accounts of this epidemic make it clear that it consists for the most part of relapsing fever and typhus, and that in this respect it resembles the Irish epidemic of 1847. One of the diseases composing it, however, has been described as cerebro-spinal meningitis—a true inflammation of the pia mater, accompanied by effusion of lymph or pus, attacking chiefly young children, and "decidedly infectious." This malady has been spoken of as prevailing at St. Petersburg, but more especially at Dantzic, and the Polish frontier of Prussia, and in Brunswick, Hesse and Hanover.

Epidemic cerebro-spinal meningitis is said to have been first accurately observed at Geneva in 1805, and since then epidemics of it are recorded as occurring in France, Italy, Norway, Denmark, Ireland and America. For a full account of all these epidemics I must refer to the elaborate works of Boudin and Hirsch.

It is possible that some of these epidemics were really examples of primary inflammation of the cerebral and spinal membranes; but when this seemed to be the case it is to be noted that the persons attacked were comparatively few, that no eruption appeared on the skin, and that there was no evidence of the disease being infectious. I would instance in particular the epidemic described by Dr. Mayne, as attacking children in several of the Irish workhouses in 1846, with regard to which the absence was noted "of any proof that it has ever been propagated by contagion." But most of the epidemics, it is to be observed, occurred under precisely the same circumstances as those in which typhus appears—that is to say, they occurred in overcrowded and badly-ventilated barracks, prisons, and workhouses, and among the poorest of the civil population living in overcrowded houses and narrow courts. Speaking of the French epidemics, M. Corbin says:—"La cause principal à nos yeux (et en cela nous sommes d'accord avec M. Tourdes, avec M. Gasté, et avec la plupart des médecins militaires), c'est l'encombrement." Speaking of the epidemic in Italy, M. Devilliers writes:—"Elle atteignait des populations pauvres, entassées quelquefois pendant l'hiver pêle-mêle avec les bestiaux." Like typhus, the disease has been most prevalent in winter and spring, and, like typhus, it has been propagated by contagion. It is true that some writers have doubted its contagious character, just as some observers have denied that typhus is contagious; but the fact that the disease has in many instances been transported by certain French regiments from one locality to another, in my opinion, settles the question.

The American epidemics of cerebro-spinal meningitis, which have been regarded as the precise counterpart of those observed in Europe, may be selected for more detailed investigation; and, in the first place, it is a significant fact, that in America "epidemic cerebro-spinal meningitis" has long been known by the designation "spotted fever." At the present time both terms are applied indiscriminately to the same disease. Among its chief symptoms are:—rigors, headache, and vomiting, succeeded by acute delirium, and afterwards by coma, and in some cases by convulsions or tetanic rigidity of the muscles; a dry brown tongue; injected conjunctivæ; albuminous urine, and an eruption upon the skin rapidly becoming petechial. The principal *post-mortem* appearances are:—increased vascularity of the meninges of the brain and cord; an effusion of serum beneath the arachnoid and into the ventricles; occasionally lymph or pus beneath the arachnoid; hypostatic congestion of the lungs; enlargement of the spleen; a fluid condition of the blood, and extravasations of blood in various parts of the body. Two of these characters require especial notice—viz., the eruption and the lesions of the cerebro-spinal membranes. One writer describes the eruption as sometimes "like measles;" a second, as "not unlike the spots seen in enteric and typhus fever," and as sometimes presenting "all grades from the rose-colored rash to the deep and permanent petechiæ;" while a third writes of them thus:—"The more recent and smaller ones disappeared on pressure, while the larger ones were ecchymotic in character. The larger ones were dark in their centres, and of a light-red along their margins. Their form was exceedingly irregular; they were notched and irregular in outline, and either angular or nearly rounded, none having any definite oval form." Lastly, Dr. Upham, in one of the ablest memoirs on the subject, observes:—"Petechiæ were not an unfrequent manifestation—in appearance almost identical with the true typhus eruption, and like that seen upon every part of the body except the face—persistent on pressure, varying in hue from the darkest aspect of measles to that of the true petechial spots imbedded in the skin." No better descriptions could be given of the eruption of typhus. With regard to the cerebral lesions, it is to be noted that though, as in typhus, lymph and pus were found in some cases, in many the effusion was simple serum, while in others the brain and membranes were perfectly healthy; so that, according to a late writer, "the conclusion is irresistible, that the disease consists of a pathological condition of the system at large, whereof the various local lesions are but the accidental complications." If to the above characters be added the facts, that its contagiousness is a disputed question, and that it has been found to prevail chiefly under circumstances of overcrowding and inadequate ventilation, it cannot be surprising that many American physicians admit the close relation of cerebro-spinal meningitis to typhus, while some maintain the identity of the two diseases. It may be well, therefore, to consider the four points of distinction between them laid down by one of the latest writers on the subject, Dr. Lidell, and in doing so I adopt the writer's own words.

1. "Spotted fever often runs its course in a few hours; typhus requires at least several days." The rapid course of many of the American cases, and of epidemic cerebro-spinal meningitis generally, is no doubt remarkable, but is not sufficient to found a distinction, for many cases of typhus are on record where the disease has terminated fatally on the second or third day, or even after a few hours. Such were the cases of *typhus siderans*, or *blasting typhus*, which devastated the garrisons of Saragossa, Torgau, Wilna and Mayence during the wars of the first Napoleon. Similar cases were observed in Ireland during the epidemic of 1847–48, and amongst the French troops in the Crimea in 1856.

2. "Spotted fever is frequently attended with convulsive movements; typhus fever is never so accompanied." My experience of typhus is precisely the reverse. Convulsive movements are not uncommon. During the last three years upwards of forty cases of typhus, complicated with general convulsions, have been observed at the London Fever Hospital, and in several instances I have noted

strabismus, tetanic contractions of the muscles of the limbs, and even opisthotonos.

3. "Spotted fever patients often die very suddenly and unexpectedly of coma and asphyxia; typhus patients do not die in this way." According to my experience of typhus, the most common mode of death from the primary fever is by a combination in various proportions of syncope and coma. A large proportion, also, of fatal typhus cases are complicated with pulmonary disease, and then death occurs by coma and asphyxia. Moreover, I have repeatedly known patients who appeared to be going on well become suddenly comatose, and die in a few hours.

4. "The eruption in spotted fever frequently appears on the first day; while in typhus the eruption does not appear till the end of the week or more." According to my experience, the eruption of typhus usually appears on the third or fourth day, is rarely delayed beyond the sixth day, and may sometimes be noted on the second day. It is well known, also, that in severe cases of most blood diseases petechiæ may appear as early as the first day. The sooner the eruption of variola appears, the more grave is the case.

These considerations seem to justify the opinion that the grounds for drawing a specific distinction between the epidemic cerebro-spinal meningitis or spotted fever of America and typhus fever, are most inconclusive, and particularly when it is recollected that typhus fever running the ordinary course has been prevailing in many parts of America since the commencement of the present war. I agree entirely with the opinion expressed by Dr. Upham: "The disease," he says, "seemed to me rather to partake of the nature of typhus, in a severe and malignant form, identical in its essential elements with the typhus fever of Great Britain, which, under the names of maculated typhus, ship fever, camp or goal fever, has many times been observed in this country—having, in this instance, a special direction to the meninges of the brain and spinal cord." And if we study the accounts of the epidemic cerebro-spinal meningitis which is said to prevail at present in Russia and Germany by the light of the American descriptions, we are forced, I think, to a similar conclusion. It is needless to recapitulate the symptoms of this epidemic, for they are almost identical with those observed in America, including an eruption which sometimes resembles that of measles. But if we bear in mind further that this Russian cerebro-spinal meningitis is said to be "decidedly infectious;" that its prevalence is favored by overcrowding and bad ventilation; and that there is a concurrent epidemic of undoubted typhus, it seems probable that the infectious cerebro-spinal meningitis of Russia and Germany is merely typhus running a rapid course with severe cerebral symptoms, and sometimes with actual meningitis, as in the cases observed at the London Fever Hospital. At all events the possibility of such being the case must not be lost sight of.

It would be a fit subject for inquiry if any relation exists between the frequency of convulsions in the typhus of Russia and the use of bread containing spurred rye. A disease termed "convulsive ergotism," distinguished by the characters of an acute comatose affection—giddiness, dimness of vision, insensibility, convulsions, imperceptible pulse, and death within two days, is said to prevail in the epidemic form in various parts of the continent where rye constitutes a considerable proportion of the food of man. There is, however, no evidence or probability that this disease is infectious.

In conclusion, I would only observe that before attempting to establish a new specific disease, it is necessary to keep in view the many modifications which those already known to us may undergo; and more particularly to study their etiological relations, and the circumstances under which they arise and are propagated.—*London Lancet.*

BACTERIDIA AND MALIGNANT PUSTULE.

To the Editor of the Lancet.—*Sir,*—The facts related in the following extract from a masterly article on Spontaneous Generation, by M. Jamin, in the *Revue des Deux Mondes*, are in all ways so interesting, that I make no apology for asking you to publish them. I ought to add that the italics, which occur in one or two places, are mine.

"Dr. Davaine has devoted himself for some years to the careful study of a terrible malady of the 'charbon' genus—the splenic apoplexy (*sang de rate*—anglicé, 'blood') which developes itself spontaneously in sheep, and is inevitably fatal to them. The blood of the diseased animals, examined under the microscope, has been found crowded with minute organisms allied to the *bacteria*, and which have been named *bacteridia*. This blood injected into the tissue of another animal carries these creatures with it, and death is certain. The malady is equally transmitted when a rabbit is made to swallow either the blood or part of an animal affected with splenic apoplexy. The infected blood may be dried and *kept for an indefinite time without losing the germs of the infusoria which it contains*; and whenever it comes to be injected or to be given as food, the disease is propagated. These facts being ascertained, as the symptoms of splenic apoplexy offer some affinity to those of another malignant malady known by the name of 'charbon' (or 'malignant pustule'), inquiries were instituted as to whether there might not be a still closer bond between the two affections. 'Charbon' begins by a 'malignant pustule' of blackish color, surrounded by a ring of vesicles, which must be speedily destroyed by caustic, if a general infection is to be avoided. On the 14th of April, of the present year (1864), Dr. Raimbert was called to a carter, who had contracted a true malignant pustule on a farm where the sheep were suffering from splenic apoplexy. He removed the pustule, dried it at once, and handed it over to Dr. Davaine, who examined it under the microscope. It was a perfect *felt, composed entirely of bacteridia.* Rabbits fed with it contracted splenic apoplexy in consequence, and died with their blood crowded with *bacteridia*, and communicated 'charbon' to other animals. Here, then, is a disease transmitted from sheep to man, and appearing in him under the form of a pustule, which, in its turn, has the power of communicating to all animals the particular virus which it contains. And what is this virus? A brood of infusoria of a special and venomous species. *The smallest quantity suffices to kill, because it suffices to sow and multiply the species.* The malady is transmitted by inoculation, because the animalcules pass from the infected to the inoculated subject; it is transmitted by the air, because the germs dry up and are wafted away, and become again sown; possibly, also, as many hold, by the bites of flies, which thus become the vehicle for the transmission of the *bacteridia.* Such is the explanation, not less simple than certain, of the effects of a particular virus. The future will decide how far it is possible to extend to all analogous cases so fertile a theory, but already it is easy to understand the hopes of physiologists and to predict their success; perhaps we are on the eve of knowing, avoiding and curing contagious scourges."

The facts here detailed are not altogether new. Virchow, and some earlier observers, whose names escape me for the moment, had already pointed out the occurrence, in countless numbers, of a kind of "vibrio" in the blood of *living* animals affected with charbon.

I have not been able to refer to Dr. Davaine's own account of these researches; but before the case which he wishes to make out for the minute organisms he describes can be considered as finally established, other data will be required beyond those adduced by his reviewer. Not only must the constant presence of this particular species of *bacteridia* in the diseases in question be ascertained, but its absence in other putrefactive disorders. In all such cases there is a special danger, which those who have most studied the subject will best appreciate, of falling into the old error of taking for essential what may possibly be only an epi-phenomenon. The perfect way in which the facts seem to explain all the conditions, although a strong argument in favor of the interpretation set upon them, may, on the other hand, easily beguile us into a too ready acquiescence in it.

At the same time, the whole tendency of recent research, and of Pasteur's discoveries in particular, is to the effect that the tribe of minute organisms to which the *bacteridia* belong, in reality take the initiative in, and are the primary cause of, the zymotic changes with which they are found associated.

The uncontrollable *itching* which marks the first stage of malignant pustule, and is so characteristic of it, is, when considered as a phenomenon which betrays the presence of so many parasites in other parts, not undeserving of attention in connection with Dr. Davaine's view.

Should his discovery be confirmed by more extended researches, it is one of which it will be difficult to overrate the value.

As regards malignant pustule, its importance will be supreme. Diagnosis, pathology, origin, mode of propagation, and indications of cure will be all summed up in the conditions which attach to the growth and multiplication of a single parasitic organism.

In relation to diagnosis, the fact is one which might eventually become of the greatest possible use. For, if it be true that the first brood of *bacteridia* is developed in the part which is to be the seat of the future pustule, the practitioner, armed with the microscope, and with the little "harpoon," with which the Germans dip for trichina, might ascertain the characteristic presence of these minuter parasites by means of an operation not more formidable than the puncture of a grooved needle.

But, as M. Jamin rightly suggests, the interest of this discovery, should it be confirmed, culminates in its relation to the subject of contagion generally.

In a memorandum on the Investigation of Epidemic and Epizotic Disorders, which I drew up at the request of the British Medical Association, in March, 1863, there occurs the following passage:—

"In order to render the inquiry on which the Association is about to enter really comprehensive, it would be necessary to associate with the study of epidemics that of the diseases caused in man and animals by living parasites, external and internal.

"A fuller knowledge of the phenomena attaching to the dissemination of the prolific and minute germs of these parasites could not fail to be of great use in helping to the true interpretation of the phenomena which attach to the strictly analogous dissemination of the equally prolific and equally minute germs of contagious poisons.

"In particular, it would be of the highest value in showing by data that could not be gainsaid, what is the real worth of the negative evidence now so implicitly relied on, as an indication of spontaneous origin, and as opposed to the law of propagation by continuous succession.

"Additional reasons for putting the parasites and the contagions together in such an inquiry, are:—1, that at many points the two blend, insensibly, one into the other; 2, that, with the advance of knowledge, diseases are constantly being transferred from the group of common contagions to the group of parasites; and, 3, that there already exists amongst the most advanced thinkers on these topics, a shrewd suspicion that the two groups will eventually coalesce, and be found in their essence identical."

Dr. Davaine's interesting discovery seems not unlikely to offer a striking illustration of more than one of the several positions here taken. I am, Sir, your obedient servant,

WILLIAM BUDD, M.D.

JACOBSON'S METHOD OF EXTRACTING CATARACT.

JACOBSON, referring to a pamphlet he had published on the subject, stated that during five years he had operated by his method on one hundred cases, two of which were lost from suppuration; that since that time, in a space of somewhat more than a year, he had operated on a further forty cases, with a loss of only one eye. He then dilated on the three principal peculiarities of his method.

1. *Chloroform is always given to complete Narcotism.*

2. He always *makes his flap in the boundary-line of the cornea and the sclerotic*, through a vascular structure therefore. To this he ascribed the rapid union of the edges of the wound he had obtained. A second advantage of this method of section was that in case of any retraction of the cornea occurring, this never extended to the line of incision, so that no separation of the edges of the wound took place.

3. He *removes that portion of the iris, after extracting the lens,* which appears to be most exposed to bruising by the exit of the lens. The unusually eccentric position of the line of incision of the flap renders it easy to remove the portion of the iris up to its extreme ciliary border.

An animated discussion ensued on the entire question of the methods of extracting hard cataracts.

Arlt said, Prof. Jacobson's statistics were very remarkable: he himself had only succeeded in restoring vision to ninety per cent. of his patients, the minimum amount of vision being the power of finding their way about alone. He considered suppuration of the cornea a secondary condition supervening in iritis and irido-choroiditis. He saw no advantage in Jacobson's line of section, indeed considered it predisposed to prolapsus of the iris in cases in which iridectomy had not been performed. The size of the section must be regulated by that of the cataractous lens. Iridectomy should not be performed uselessly, for it causes ultimately a dazzling. But Arlt considered it advisable (1) in simple cataracts liable to their cortex rubbing off during extraction; (2) when the pupil did not properly dilate; (3) if the cataract was very hard, and the section of insufficient size;—in these cases the iridectomy should precede the opening the capsule: in the following ones it should succeed it. (1) If the iris has suffered much bruising by the exit of the lens; (2) if any cortical substance is left behind.

Rothmund considered iridectomy should not be unconditionally performed in extraction; he agreed with Arlt in its indications, and did it immediately after the section, contrary to the practice of Jacobson, who first extracted, excepting when any cortical parts of the cataract remained behind.

Arlt appended his experience as to the influence of portions of the cortex of the cataract being left in the anterior chamber. He was, from years' experience, convinced that the swelling-up of such cortical portions often led to the destruction of the eye, especially in over-matured and certain forms of fluid cataracts. If lens and capsule be enucleated in one, no suppuration need be feared.

Dor regretted that Prof. Jacobson had not more circumstantially given the exact amount of sight his patients had attained. He also wished some further explanations on the enormous doses of chloroform, the tolerance to which could not, at any rate, in children, be explained by intemperance.

Jacobson stated, circumstances had not permitted him yet to give the exact visual power his patients had attained for a sufficiently long period after the operation.

Sczokalsky testified to chloroform facilitating the operation of extraction. He had also remarked an increasing tolerance for chloroform.

V. Gräfe made the following remarks:—In the vast majority of cases the cornea was the first to suffer, the iris and choroid secondarily; he had observed diffuse suppuration and annular abscess of the cornea in a case of irideremia. He protested against Arlt's dictum that no suppuration could ensue, if the lens was enucleated with its capsule entire.

He believed that the systematic conjunction of iridectomy with extraction diminished slightly the number of lost eyes; but questioned whether this compensated for the general impairment of vision such patients experienced from the over-large pupil, which failed, as a less pupil would do, to correct, and, to a certain degree, to supplement those imperfections of vision necessary to an absence of all accommodating power. He practically found the enlarged pupil caused in the patients a want of power of exactly localizing their visual impressions.

He stated that he was now occupied in analyzing the statistics of the acuteness of vision he had obtained in 1,600 flap-extractions. All he would now signalize was, that the operation on the lastly-affected eye yielded by far the more favorable result. He considered certain over-mature cataracts especially dangerous to operate on, not so, as Arlt, however, cataracts with a fluid cortex as with a viscous one that adhered to the capsule. He considered the capsule-epithelium often contributed far more than any cortical *débris*, by its germination, to a disastrous result. He had, however, under certain circumstances, especially in unripe cataracts, preceded extraction by opening the capsule some time before.

Arlt said, if the suppuration commenced, as v. Gräfe assumed, in the cornea, it could hardly be prevented, as it was, by compressbandages, &c. However, what he wished particularly to impress was the danger of leaving any cortical parts of the lens behind. He did not attach so much importance to the general constitution of the patient as was usually done; for how was it that in a double extraction sometimes one eye turned out well whilst the other went wrong?

V. Gräfe adverted to cases in which suppuration of the cornea led to irido-cyclitis, morbid changes in the vitreous, retina, &c., and thus the destruction of vision, without this result being directly induced by the corneal suppuration, which might have completely retrograded.

As regarded one eye doing well, the other badly, in a double operation, this might depend on the one being more diseased than the other; this view was borne out by the greater liability to a bad result of the eye which first became cataractous—a fact in itself pointing to the unequally morbid conditions of the two eyes. He was satisfied of the importance of the influence of the general constitution of a patient on the result of an extraction.

Arlt said, such difference in the two eyes as Prof. v. Gräfe alluded to was possible, but not yet proved. He would again protest against Prof. Jacobson's assertion of the innocuity of cortical *débris* left behind after an extraction.

Ruete did not consider small portions of lens-cortex remaining of vital importance, but agreed on the danger of larger ones. He cited a case in which, after an operation for division, the lens-substance swelled up and produced violent symptoms, which entirely disappeared as soon as the pupil was dilated by atropine, to re-appear again as the effects of the atropine went off.

Jacobson advised, in case of any residuary cortical fragments setting up irritation, the instillation of atropine every ten minutes. He agreed with v. Gräfe in the origination of purulent corneitis from the wound itself.—*The Heidelberg Ophthalmological Congress*, from *The Ophthalmic Review.*

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JULY 13, 1865.

MEETINGS OF STATE MEDICAL SOCIETIES. VERMONT MEDICAL SOCIETY.—We are glad to observe an increasing interest in the periodical meetings of our State Medical Societies. They are steadily gaining in scientific importance, and cannot fail to exert an excellent influence upon the general tone of the whole profession. The character of these meetings has been very various in different States. In some, as in our own heretofore, the principal object has been to listen to the annual address and to enjoy the social re union of brethren so rarely brought in contact with each other at other times; while it was left mainly to the district organizations to keep up the standard of professional character, and to cherish in their several circles the love of scientific research and a faithful devotion to the cause of truth. In our annual meetings, however, we feel that it is but just to say, that the kindly intercourse of old friends which they permit has undoubtedly been the chief attraction which has brought the members together. Evidence of this appeared at our last anniversary, when the necessary omission (*res angusta domi!*) of the usual social entertainment led to a most deplorable deficiency in the number of fellows usually present. The opportunity which these occasions offer, however, for a free discussion of questions of general professional interest and importance, apart from the amenities of friendly communion, has impressed the Society so fully that, as we have before announced, it was determined at the last annual meeting to hold a session of two days next year, in order that ample time might be afforded for all the objects of these meetings. We rejoice in this evidence of renewed vitality in our old Society, and are confident it must result in much good.

Some of the Societies of our sister States are ahead of us in this important matter. The Medical Society of Vermont has just held a meeting, not only of two days' duration, which was of unusual interest, but we observe that it was a *semi-annual* meeting; so that even now they lead our State in the evidence which these occasions afford of active zeal in the interests of medical science. A report of this meeting has been furnished us by Dr. L. C. Butler, and it will be seen that the result is of much value to the profession at large. We are under great obligations to Dr. Butler for his excellent report, and should be glad to print a similar record of the doings of any of our State societies. They cannot fail to be read with much interest, and thus presented through our pages they will reach very many readers who cannot have access to them in the form in which they are usually printed.

The semi-annnal meeting of the Vermont Medical Society was held on the 28th ult. at Stowe, a thriving, busy little village, cozily nestled in a beautiful valley between the two forks of the Green Mountains. At the appointed hour a small representation of the medical profession of the State met in one of the spacious apartments of the Mount Mansfield Hotel, and the Society was called to order by the President, Dr. O. F. Fassett, of East Berkshire, and opened by prayer by Rev. J. T. Ford, of Stowe, in accordance with the resolution passed at the annual session. The minutes of the annual meeting were read by Dr. J. S. Richmond, Secretary. The President, in a brief opening address, made appropriate and timely suggestions in regard to a suitable tribute of respect to the Medical Staff of Vermont, who have so nobly done their duty in the army during the rebellion; in relation to the members of the Society who have died during the year; and also in regard to the inefficiency of the present registration law of the State. The first and last suggestions were referred to a committee consisting of Drs. Butler, Rublee and Sutton, to report at the annual session in October next.

Drs. Edwin Porter of Northfield, Noah Litemore of Lowell, A. I. Hyde of Hardwick, R. Sherwood of Hydepark, O. L. Watson of Middlesex, and T. J. Holbrook of Wolcott, were severally proposed for membership, and upon reference to the committee on admission of members, who reported favorably, were duly elected.

Dr. J. B. Gibson, of Dunham, C. E., was invited to a seat as an honorary member of the Society, and participation in its deliberations.

Dr. Crampton presented resolutions on the death of Dr. N. W. Fairchild, of Milton, a member of this Society, which took place April 9th, 1865, while in the faithful discharge of his professional duties. Dr. H. F. Stevens, of St. Albans, was requested to prepare and present a biographical sketch of the deceased at the annual meeting in October next.

Discussion on Veratrum Viride.—During the afternoon session, Dr. L. C. Butler, of Essex, presented a paper on *The Physiological Properties and Therapeutical Action of Veratrum Viride,* in which he commented on its peculiar properties as an arterial and nervous sedative, its wide range of therapeutical application, and demonstrated its reliability and safety in the treatment of a large class of diseases. The paper gave rise to an animated discussion, and was referred to the Committee on Publication.

Dr. Stevens coincided entirely with the views presented in the paper. He had used veratrum in many of the diseases named, with the happiest effects, and believed that pneumonia in particular, if seen in its early stages, might be controlled by it without the use of the lancet. There was one disease, however, not mentioned, in which he had used veratrum with the most gratifying results; viz., *mammary abscess.* His attention was first called to the use of it in this disease some years since, when travelling in the West, by a friend of his, a physician, who invited him to visit a patient whom he was treating for this affection with veratrum. His friend informed him that in every case where the drug was given before the hardening of the tissues commenced, the inflammatory action was promptly arrested. Since that time he had used it in many cases, but with the greatest benefit in those which were the result of febrile action locating in the breast as a *finale,* and when no induration had taken place. In these cases his experience in the administration of veratrum had been most happy. He believed it would arrest an inflammatory abscess at once.

Dr. Chandler contrasted the practice of forty years ago in pneumonia with that of the present day. His recollections of the lancet, antimony and blisters always used in that disease were vivid. The mortality was much greater than now. He preferred the modern treatment with veratrum, &c., as being much safer and more successful. He had used the article in croup, also, and always with good effect.

Dr. Clark had great confidence in it in pneumonia and in rheumatism; had used it in scarlatina, but thought it too depressing for many cases; thought much of it as an external application in acute diseases, whitlow, &c.

Dr. Jones could not express so strong a confidence in its effects. He had seen spasm of the diaphragm, hiccough, and irritation of the stomach produced by it. It had never taken the place of the lancet in his practice, and he thought we were liable to err in laying the lancet aside. If he could have the early hygienic management of pneumonia, he seldom bled, but he could not give veratrum to his patients and go away from them feeling safe. He feared we were carrying the use of this article to extremes.

Dr. Chandler suggested that one reason why veratrum failed in the hands of some practitioners, is that the preparation used is impure or inert. He had found that the quality of specimens varies materially. [And this same reason will account not only for failure with veratrum, but with other remedies. The druggist is as likely to be influenced by the "almighty dollar" as any class of business men.]

Dr. Hathaway had used veratrum viride in articular inflammation, and pleurisy, and had never been disappointed in its effects.

Statistics of Diphtheria in Vermont. Discussion.—Dr. Stevens presented an elaborate paper embodying interesting statistical information in regard to the wide-spread prevalence and mortality of diphtheria, and particularly in certain portions of the State. These statistics he gathered from the Vermont Registration Reports. In 1858, the disease was first classed among the zymotics, and denominated diphtheria. Fourteen deaths were reported. In 1859, 79 deaths, the greatest number being in Orange County, midway of the eastern margin of the State. In 1860, 212; Washington, Windsor, Rutland and Orange suffering most, forming a belt across the middle portion. In 1861, 441; Rutland, Windsor, Orange and Addison giving the greatest mortality. In 1862, 818 were reported, the belt extending north into Caledonia, Washington, Chittenden and Lamoille. Thus showing a steady increase in the mortality from this terrible disease, culminating, probably, in 1863, which will doubtless exhibit a still greater mortality than any preceding year. The paper was referred to the Committee on Publication.

The presentation of this paper elicited an interesting discussion upon the whole subject of diphtheria, in which the members generally participated.

Dr. Hyde had seen two or three hundred cases, 15 to 20 per cent. of which had proved fatal. He had pursued one plan of treatment at one time, and laid it aside for another, with about the same disheartening result. He adopted Greenhow's pathology, that it is a constitutional disease with a local exudation, which, breaking down and being absorbed into the system, produces a poisonous condition of the blood. Local treatment may prevent this absorption, and cannot be dispensed with. It is not a throat disease exclusively. He had seen cases where the peculiar exudation was upon the foot, on the mucous membrane of the stomach, on the fingers and the toes, followed by the sequelæ of the disease. He uses local applications, and, in conjunction with them, a tonic course in mild cases. In malignant cases, where the exudation resembles gangrene, he had used bromine as a local application, in connection with quinine and the vapor bath, and had saved a larger proportion of his patients than formerly. Quinine should be used in heroic doses. Two grains every four hours will kill the patient, while ten to fifteen grains will kill the disease and save life.

Dr. Litemore had seen some forty cases in his locality, and had been quite successful in its treatment, save in one school district, where he had eleven cases, nine of which proved fatal. These cases were furiously delirious, almost maniacal, these symptoms soon being followed by prostration and death. His treatment was rhubarb and soda to obviate the costiveness which he sometimes found present, quinine, carbonate of ammonia, potash and iron, with pork and onions for an external application. He did not think the disease any more contagious than typhoid fever.

Dr. Richmond referred to the division into *true* and *false* diphtheria, proposed by the London *Lancet*. He had found the peculiar membranous exudation in both forms, but thought it not so thick and tenacious in the false as in the true. The latter he readily recognized by the smell, it being much like that of rotten apples in a close room. The one form was constitutional, the other local. He used a saturated solution of muriate of ammonia and *French* (that being the purest) chlorate of potash, with a view to prevent the decomposition of the membrane, with fair success.

Dr. Sutton had remarked a difference in the color of the membrane, extent of the exudation, and in the constitutional symptoms in the two varieties—the false being in spots or white points, the true of an ash color, thickening into a tenacious membrane, and he had seen both going on together when the disease prevailed as an epidemic. In the former, he had never observed the peculiar smell alluded to.

Dr. Crandall related a case in which the membranous exudation of diphtheria was found in the vagina and on both labia, occurring after parturition.

Dr. Powers had noticed a disease among horses, which farriers called diphtheria. In one instance, a young man, in removing the exudation from a horse's mouth and throat, scratched the skin upon his hands, and had what he called diphtheria as a result.

Enormous Enlargement of Mammæ, with Suppression of Catamenia.—Dr. Chandler presented two photographs of an enormous enlargement of the mammæ, which he had seen in consultation with Dr. Branch. The patient is 32 years of age, healthy, weight about 90 pounds. One of the breasts measures three feet two inches in circumference at the base, the other an inch or two less; estimated capacity of both, twenty-four quarts; weight, *forty-eight* pounds. They are not painful; secretion not abnormal in quantity during lactation; no tenderness; not indurated or nodulated to the touch. The patient has had eight or ten children; a year or two since had slight enlargement, which she attributed to suppression of menstruation. When that function was restored, the breasts became of normal size. Six or eight weeks since, they began to enlarge again, the menses being suppressed. She applied to Dr. Branch for "driving medicines," as she termed them. How shall this rapid, morbid growth be accounted for? Is it vicarious menstruation, modified by the nutritive process?

Discussion on Cancer.—The evening session was mainly occupied in a discussion upon the subject of *Cancer*, with especial reference to the duty of the profession to prevent, as far as possible, the cases of cancer and cancroid growths, coming under their observation, from passing into the hands of the so-called "cancer doctors." Whilst the incurability of *true* cancer was admitted by all the speakers, it was suggested that more attention should be paid to diagnosis, as no doubt many tumors were pronounced cancers that were not really such, and the reputation of the "cancer doctors" was made by the cure of these. It was also suggested that the dread of extirpation by the knife operated to induce many to apply to quacks, inasmuch as they seldom if ever use the knife, but substitute "caustics" and "drawing salves." The regular practitioner ought to know as much about cancers as the "cancer doctors," and as much about the application of remedies to check their progress or to "draw them out," as the quack. It was therefore suggested to be the duty of the profession to treat cancers and cancroid growths with such remedies, whether the knife, caustics, "salves," or placebos, as each case required, with a view to keep patients from jeopardizing their lives and fortunes by trusting to quacks.

Many of the members being desirous of occupying the second day with an excursion to the summit of Mansfield Mountain, the Society adjourned for that purpose.

AT a called meeting of the Faculty of the Medical Department of the University of Louisville, Ky., held on the evening of the 4th inst., the following preamble and resolutions were passed unanimously:—

Whereas, Professor Benjamin Rush Palmer has been stricken down in the full and bright meridian of his life, and in the midst of his usefulness, we, his colleagues in the University of Louisville, have met together to give some suitable expression to our deep and painful sense of the sad bereavement we have sustained; therefore,

Resolved, That we recognize and deplore in the death of Professor Palmer an almost irreparable loss to the school which he adorned and dignified, and to the community in which he so usefully labored.

Resolved, That we will cherish with pride the memory of a man so eminently distinguished, as a sound and eloquent teacher, an able physician and a skilful surgeon.

Resolved, That we commend to the imitation of his surviving brethren the example of Dr. Palmer in his habitual and scrupulous observance of all the obligations of professional ethics.

Resolved, That we will transmit to the family of the deceased a copy of our proceedings and resolutions, together with our deep condolence upon the calamity which has overtaken them. G. W. BAYLESS, *Dean of the Faculty.*

DAMAGES AWARDED.—Dr. Henry G. Clark, while City Physician, fell upon the ice in Chauncy street, and for injuries received he brought a suit against the city for twenty thousand dollars damages. The case was left to referees, who have awarded him six thousand seven hundred dollars.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, JULY 8TH, 1865.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - -	52	41	93
Ave. mortality of corresponding weeks for ten years, 1853—1863,	38.4	33.4	71.8
Average corrected to increased population - - - - -	00	00	79.[illegible]
Death of persons above 90 - - - - - - -	0	0	0

DIED,—At Louisville, Ky., July 4th, Dr. Benjamin R. Palmer, in the 52d year of his age.

DEATHS IN BOSTON for the week ending Saturday noon, July 8th, 93. Males, 52—Females, 41. Accident, 4—apoplexy, 1—inflammation of the bowels, 1—congestion of the brain, 1—disease of the brain, 4—inflammation of the brain, 1—cancer, 2—cholera infantum, 9—cholera morbus, 1—consumption, 13—convulsions, 2—croup, 1—cyanosis, 1—diarrhœa, 4—dropsy, 1—dropsy of the brain, 2—dysentery, 2—erysipelas, 1—scarlet fever, 1—typhoid fever, 4—disease of the heart, 1—homicide, 1—infantile disease, 1—disease of the kidneys, 1—congestion of the lungs, 1—inflammation of the lungs, 2—marasmus, 3—measles, 2—mesenteritis, 1—old age, 1—peritonitis, 2—premature birth, 1—purpura hæmorrhagica, 1—pyæmia, 1—sore throat, 1—suicide, 1—sunstroke, 1—teething, 1—unknown, 12—whooping cough, 2.

Under 5 years of age, 47—between 5 and 20 years, 4—between 20 and 40 years, 23—between 40 and 60 years, 10—above 60 years, 9. Born in the United States, 65—Ireland, 21—other places, 7.